CALIFORNIA STATE BOARD OF HEALTH

Weekly Bulletin

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NOT ALL GERMS ARE HARMFUL.

The average person does not realize that most of the known bacteria are not harmful to mankind, and many of them are absolutely necessary to human life.

Dr. Herman N. Biggs, Commissioner of Health of New York State, says that it is the harmful germs that usually attract attention, just as it is the man who commits a crime or does someone an injury who gets his name in the newspapers. In a popular talk given recently, Dr. Biggs states:

As a matter of fact, out of something over 2000 known and described bacteria, or germs as they are commonly known, less than 100 are really capable of doing any harm to anybody. On the other hand, there are a great many germs which are not only not harmful, but which are actually necessary to the continuation of human life. For example, the organisms of decay or putrefaction while usually regarded as a nuisance, are really beneficial, as the following explanation will show. Let us suppose for a moment that the earth could be made absolutely sterile as far as germ life is concerned. In a comparatively short time, plant life, including vegetable life, would use up all the plant food in the soil, and all the fertilizer now available. When the end of these natural resources was reached, then all plant life would cease shortly thereafter, all animals would then die of starvation and famine would overtake mankind. Thus the putrefying bacteria which break down the wastes of human, animal and plant life are absolutely necessary to our very existence.

There are also other kinds of friendly germs; for example, those which give the pleasant flavor to butter and cheese. Butter of poor flavor oftentimes means that the cream from which the butter was made, was produced under insanitary conditions, and that organisms of putrefaction thus got into the cream in place of the harmless and necessary lactic acid germs which give the characteristic flavor to butter.

Then there are other instances of friendly germs, such as the acetic acid bacillus that turns cider into vinegar, but perhaps our attention should now be turned to the unfriendly germs; those which cause trouble and sickness to the human race. The difference is that while the friendly germs in growing produce substances which help mankind, the unfriendly ones produce poisons, or toxins as they are called, which are extremely harmful.

What happens when a person takes a poison such as arsenic or corrosive sublimate, or carbolic acid? Just as soon as possible they are given an antidote, a substance known to neutralize or counteract the poison. If it can be given before the poison has a chance to act on the human system, the person gets well.

In the same way, when a person catches an infectious disease, such as diphtheria, the germ, in growing and multiplying, starts to manufacture a poison which often affects the heart or paralyzes some of the other important muscles. When this happens, just as with the mineral poison, an antidote, in this case called an antitoxin, must be given at the earliest possible moment before the poison or toxin has a chance to damage the tissues of the body.

Germ life will continue as long as the earth lasts. Our hope of controlling the evil bacteria and preventing their doing harm, lies first in protecting ourselves, so far as possible, through proper health habits from catching the infectious diseases, and secondly, in making use of such antitoxins and vaccines as are available as antidotes or preventives. It is just as foolish to deny the existence of these infectious germs and to refuse to make use of the remedies which science has given us as it is to deny that there are criminals in the world and therefore to argue that a police force is unnecessary in order to prevent crime.

Botulism from Canned Beans.

A woman residing in Glendale, Los Angeles County, opened a jar of home-packed string beans a few days ago. She tasted the beans, and afterwards cooked them for ten minutes, serving them to the other members of her family consisting of her husband and six children. Three days later this woman developed marked symptoms of botulism—general weakness, disturbed vision and throat paralysis. After suffering acutely for nearly a week, the patient died in great agony. None of the other members of the family suffered any ill effects from eating the beans, the cooking of which undoubtedly destroyed the toxin so that the other members of the family were not effected. Some of the uncooked beans apparently were thrown out to the chickens, for about eight hours after the garbage had been thrown out to the fowls, all of them showed symptoms of limberneck and died.

The family was warned immediately not to eat any more of the home-canned product that remained unopened, and samples of beans from the same pack have been sent to the State Hygienic Laboratory for examination.

The Public Ill Health.

The chief health officer of South Africa, in an address upon public ill-health recently given in Johannesburg, pointed out that money spent on hygiene and in sanitation actually produced money. He stated that from every point of view, the human crop is the most valuable crop which any country raises; that "the State in this respect is in much the same position as a fruit farmer, and its people may be likened to the trees of an apple orchard. For the best results, intelligent care and supervision are necessary from the earliest stage and at every stage. It is some years before the trees begin to yield a return, then come years of fruitfulness, and finally decay and death. The loss or destruction of young trees before coming into bearing or during the early years of bearing, is especially serious; old trees with most of their fruitful period past are less valuable. The yield of the human crop, apart from its reproductive activities, is *work*—on the farm, in the factory, or mine, or office, wherever men or women are earning their bread by honest toil. Part of their earnings goes to support themselves and their families and dependents, but part remains to the credit of the individual and State, of which it increases the valuation, the revenue and the resources."

Diphtheria Must Be Controlled.

The increase in diphtheria morbidity and mortality is not confined to California alone. The other states have shown the same increases, and the problems connected with the control of this disease are the same in this state as in other states. It is only through the immediate administration of antitoxin in all cases that may be suspicious of diphtheria, and in the immunization of children who do not possess immunity against diphtheria, that this disease can be brought under active control. The cooperation of physicians is a matter of absolute necessity in the control of diphtheria. The general public, to be sure, must be further informed in order that every sore throat may be regarded seriously, but the prompt administration of public health control measures depends largely upon the support and cooperation of practitioners. Cases and deaths from diphtheria during the past five years are as follows:

Year	Cases	Deaths
1918	3,090	213
1919	3,037	266
1920	5,793	451
1921	9,464	644
1922	8,752	597
Totals	30,136	2,171

PALO ALTO MAKES ANOTHER RECORD.

In his annual report, Louis Olsen, Health Officer of Palo Alto, states that the death rate for his city in 1922 was 7.3 per 1000 population, a fall of 1.6 below the rate for 1921. The estimated death rate for the state in 1922 is 14.1, nearly twice as high as the Palo Alto rate. Mr. Olsen establishes the fact that if the state death rate had prevailed in Palo Alto, 98 persons would have died there last year instead of 51, the actual number.

Excluding influenza, there were but 86 cases of communicable disease reported in the city during the year. This total is lower than any similar annual total for the past ten years with the exception of the years 1913 and 1916, when there were 47 and 71 cases, respectively. For the first time since 1917 no cases of diphtheria were reported in Palo Alto, although this disease was more widely prevalent throughout the state last year than usual. No cases of either mumps or measles occurred in Palo Alto last year.

Of this record, Mr. Olsen says: "The effect of a freedom from disease, such as recorded above, is difficult to estimate, and means more than the preventing of days of sickness and perhaps some immediate deaths. The effect is far-reaching and will be instrumental in helping increase the span of life in future years."

Palo Alto spent 97.5 cents per capita for the support of its public health department last year—a total of $6,785. The cost of its fire protection during the same period is $1.47 per capita and for police protection $2.34 per capita. That the people of Palo Alto have full confidence in the local health department is shown in the fact that the city council each year provides the necessary funds to carry on the work of the department in an efficient manner.

Smallpox More Virulent Now.

The increased prevalence of smallpox is due, largely, to the fact that a considerable portion of the population of California has not been vaccinated against this disease. It is probable, also, that many cases of a more severe type of the disease have been imported from Mexico, causing a higher mortality for this disease during 1921.

The control of smallpox in California has been particularly difficult, because of the cumbersome and awkward vaccination act of 1911, which was repealed in the legislature of 1921. In the ten years of its operation, this law brought only discord and lack of harmony. Most of its measures were never enforced by school and heath officials. Its provision for the exclusion of all unvaccinated persons in attendance upon the schools whenever smallpox existed within the district led to situations difficult to control. Under the act of 1921, the control of this disease is placed under the regulation of the State Board of Health—local school and health authorities being forbidden to pass any regulations or orders for its control.

The number of cases and deaths from smallpox reported during the past five years are as follows:

Year	Cases	Deaths
1918	1,016	3
1919	2,002	5
1920	4,497	7
1921	5,579	21
1922	2,127	21
Totals	15,221	57

Influenza Record for Five Years.

The last of the important waves of influenza was noted in California during 1920, with a slight recurring rise in 1921 and an increase in 1922. The numbers of cases and deaths from this disease for the past five years are as follows:

Year	Cases	Deaths
1918	230,845	13,340
1919	82,682	4,746
1920	66,183	2,715
1921	2,565	339
1922	44,354	1,299
Totals	426,629	22,439

Making Another Spotless Town.

The town of Guadalupe in Santa Barbara County through the cooperation of its citizens with Dr. W. D. Sink, City Health Officer, has become almost spotless. With the assistance of the State Board of Health a clean-up campaign was started in November and the results at the present time show that more than half of the business section of the town has been provided with septic tanks or tightly covered cesspools and modern plumbing facilities. These have replaced unsightly, bad smelling vaults and defective cesspools that existed before the campaign started. These results have been secured without incurring the long delay necessary in the procedure for creating a sanitary district and the further delay that the construction of a sewer system would necessitate. It has become apparent, however, that the present campaign has proved the need of a modern sewer system as a permanent method of sewage disposal and it will not be long before such a system will be provided.

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Public Health Problems.

California, because of its unique geographical position, has many public health problems which are essentially peculiar to the state and which require continual alertness upon the part of the local, state and federal authorities. Among these are the tremendous flow of tuberculous persons into the state; chronic plague in rodents; typhus fever, ever present on our southern border; and the potential danger in other highly dangerous diseases from Oriental sources.

* * *

MORBIDITY.*

Smallpox.

Eighteen cases of smallpox have been reported, the distribution of which is as follows: Fresno 1, Los Angeles 1, Modesto 1, Oakland 8, Santa Barbara County 1, Santa Clara County 1, Selma 1, Stanislaus County 2, Sutter County 1, Watsonville 1.

Typhoid Fever.

Six cases of typhoid have been reported from the following localities: Alameda 1, Huntington Park 1, Merced 1, Redlands 1, San Francisco 1, San Joaquin County 1.

Cerebrospinal Meningitis.

Three cases of cerebrospinal meningitis have been reported, one each from Fresno, Lompoc and Sacramento.

Poliomyelitis.

Los Angeles County reported one case of poliomyelitis.

Epidemic Encephalitis.

Four cases of epidemic encephalitis have been reported, one each from Berkeley, Sacramento, San Francisco and Tulare County.

Botulism.

Glendale reported one case of botulism.

Epidemic Jaundice.

Los Angeles reported one case of epidemic jaundice.

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*From reports received to date for last week.

COMMUNICABLE DISEASE REPORTS.

Disease	1923				1922			
	Week ending			Reports for week ending Feb. 24 received by Feb. 27	Week ending			Reports for week ending Feb. 25 received by Feb. 28
	Feb. 3	Feb. 10	Feb. 17		Feb. 4	Feb. 11	Feb. 18	
Anthrax	0	0	0	0	0	0	0	0
Botulism	2	0	0	1	0	0	0	0
Cerebrospinal Meningitis	6	1	2	3	8	7	3	3
Chickenpox	138	189	207	203	107	168	199	139
Diphtheria	183	171	165	156	248	216	188	138
Dysentery (Bacillary)	1	1	1	0	0	0	0	0
Epidemic Encephalitis	2	3	1	4	6	1	1	2
Epidemic Jaundice	2	4	0	1	0	2	0	0
Gonorrhoea	102	202	69	64	118	100	35	54
Influenza	184	661	1,073	1,177	119	1,013	5,238	10,033
Leprosy	0	1	1	0	0	0	0	0
Malaria	3	2	1	2	2	3	4	2
Measles	255	322	396	315	14	20	25	22
Mumps	18	11	24	11	75	120	102	81
Pneumonia	144	198	195	213	139	196	197	212
Poliomyelitis	1	1	0	1	0	0	0	2
Scarlet Fever	152	193	196	184	180	144	147	130
Smallpox	15	21	11	18	102	92	98	65
Syphilis	120	214	74	85	65	137	36	82
Tuberculosis	185	188	129	129	147	155	138	177
Typhoid Fever	9	12	5	6	11	7	6	7
Whooping Cough	103	130	103	81	51	61	47	31
Totals	1,623	2,525	2,653	2,654	1,392	2,442	6,464	11,180

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